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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,225	04/04/2001	Julian Norley	P-1029	2459
23456	7590	12/14/2005	EXAMINER	
WADDEY & PATTERSON 1600 DIVISION STREET, SUITE 500 NASHVILLE, TN 37203			VARGOT, MATHIEU D	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,225

Applicant(s)

NORLEY ET AL.

Examiner

Mathieu D. Vargot

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7, 10-15, 24-28 and 30-34 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 10-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-28 and 30-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Non-elected claims 7 and 10-15 should be cancelled.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24-28 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tzeng (col. 4, lines 9-38) in view of German Offenleg 21 47 938. Tzeng discloses producing a graphite article by calendering graphite flakes to a density of up to 1.8 g/cc and teaches that the resulting sheet would have an in-plane thermal conductivity of 150-200 W/m C and a through-plane thermal conductivity of around 7 W/m C, the thermal anisotropic ratio being 21.4-28.6 based on these numbers. Note also column 4, lines 28-30 of Tzeng, which teaches that the degree of anisotropy increases "upon roll pressing of the sheet material to increased density". Hence, it would appear prime facie obvious that a method which would increase the density of the article made would in fact allow for the instant increased values of anisotropy. German Offenleg -938, as already noted, teaches making graphite articles by laminating already formed—ie, already compressed—sheets together and further pressing the laminate to presumably obtain greater densities and alignment. In view of the disclosure of Tzeng, it would have been obvious to have utilized the additional pressing as taught in German -938 to further densify the article of Tzeng. The exact density, thermal conductivities and anisotropic ratio thereof would have been result effective variables clearly

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dependent on the degree of pressing. Note also that the laminate pressing of German – 938 would allow for the formation of a larger, thicker graphite article than that resultant from a sheet and this would have utility in the formation of heat transfer media.

2.Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

In view of the amendment, the art rejection has been changed to some extent, with Tzeng now the primary reference. While applicant notes that the brush of German –938 would not be expected to have thermal properties as instantly claimed, it is submitted that Tzeng does, or the disclosure therein would render the instant properties obvious. German –938 is now being relied upon to teach the pressing of a laminate, such seen to have been an obvious feature in Tzeng to increase density as desired and thereby achieve desired thermal properties.

3.Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on 571 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot
December 9, 2005


Mathieu D. Vargot
Primary Examiner
Art Unit 1732

12/9/05